

PATENT COOPERATION TREATY

PCT

Rec'd PCT/PTO 26 SEP 2006

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

10/553466

Applicant's or agent's file reference 04-PCT-6050	FOR FURTHER ACTION	See item 4 below
International application No. PCT/KR2004/001129	International filing date (<i>day/month/year</i>) 13 May 2004 (13.05.2004)	Priority date (<i>day/month/year</i>) 13 May 2003 (13.05.2003)
International Patent Classification (IPC) or national classification and IPC B62M 11/00		
Applicant HONG, Jae ho		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
 2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 18 November 2005 (18.11.2005)
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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18 OCT 2004

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 07 OCTOBER 2004 (07.10.2004)

Applicant's or agent's file reference

04-PCT-6050

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/KR2004/001129

International filing date (day/month/year)

13 MAY 2004 (13.05.2004)

Priority date(day/month/year)

13 MAY 2003 (13.05.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC7 B62M 3/00, 11/00

Applicant

HONG, Jae ho

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR



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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/KR2004/001129

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2004/001129

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-2	YES
	Claims	None	NO
Inventive step (IS)	Claims	1-2	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1-2	YES
	Claims	None	NO

2. Citations and explanations :

The present invention relates to a bicycle drive unit capable of forward movement and zero rotation and backward movement when forward or backward pedaling.

Reference is made to the following document:

D: US 4,571,219 (BREDEN et al.) 18 February 1986

(1) Novelty (N)

Claim 1 of the present application relates to a bicycle drive unit of multi pedaling type comprising a regular direction clutch (C1), a reverse direction clutch (C2), a backward control section, etc. The regular direction clutch (C1), the reverse direction clutch (C2), the backward control section of the bicycle drive unit of the present application are not disclosed in D. Therefore, the subject matter of claim 1 is considered to be novel under PCT Article 33(2). Claim 2 is dependent on claim 1, and consequently the subject matter of claim 2 is also considered to be novel.

(2) Inventive Step (IS)

The regular direction clutch (C1), the reverse direction clutch (C2), the backward control section of the bicycle drive unit in claim 1 are not disclosed in D. In addition, said technical features of the bicycle drive unit cannot be readily invented by a skilled person in the art. Therefore, claim 1 meets the requirement of PCT Article 33(3) with respect to inventive step. Claim 2 is dependent on claim 1, and consequently the subject matter of claim 2 is also considered to involve an inventive step.

(3) Industrial Applicability (IA)

The present invention is used for a bicycle. Therefore, claims 1-2 meet the criteria of PCT Article 33(4).